

Title: Maize Peroxidase Genes and Their Use for Improving  
 Plant Disease Resistance and Stalk Strength  
 Inventor(s): Duvick et al  
 Application No: Not Assigned  
 Atty Dkt No: 35718/242052(5718-158)

1/4

	1	50
Zm-POX01	(1) -----	
Zm-POX04	(1) -----QLSPTFYASSCPNLQSIVRAAMTQA <del>V</del> ASEQR <del>M</del>	
Zm-POX05	(1) -----TVTVNEPIANGLWSFYDVSCPSVEGIVRWHVAEA <del>T</del> RRD <del>G</del>	
Zm-POX06	(1) ASSAAHGYGYGGDAAAELRVGFYKDSCPDAE <del>A</del> VRRIVAKA <del>V</del> REDPTA	
Zm-POX07	(1) -----GLLESNPGLAYNFYKNSCPSPV <del>D</del> SIVRSVTWA <del>Q</del> VAANPA <del>I</del>	
Zm-POX08	(1) -----SPPGKLEVGFYEHS <del>C</del> CPQAEDIVRNAVR <del>R</del> G <del>T</del> AREPG <del>N</del>	
Zm-POX10	(1) -----AVRELKVGV <del>Y</del> AE <del>T</del> CPEAEDIVRET <del>M</del> ARARAREARS	
Zm-POX16	(1) -----QLSSTFYDTSCP <del>S</del> AM <del>S</del> TSSGVNSAVAQQAR <del>V</del>	
Zm-POX17	(1) -----QLKEGFYDYSCPQAEKIV <del>K</del> DYVKA <del>H</del> TPHAD <del>D</del>	
Zm-POX18	(1) -----AGAAGLDMNFY <del>G</del> STPCR <del>V</del> E <del>A</del> VKEEMVATLKAAP <del>T</del> L	
Zm-POX20	(1) -----QLTAD <del>Y</del> YDCTCPDAYNIV <del>K</del> QVLIEAHKSDV <del>R</del>	
Zm-POX21	(1) ---RPVLTPLGTSRPAAGDLSVY <del>F</del> HADSCPQLETIVRSSVDA <del>A</del> <del>I</del> QQNV <del>R</del>	
Zm-POX24	(1) -----QLSPTFYDSSCPNA <del>S</del> T <del>I</del> KS <del>A</del> VNA <del>A</del> Q <del>K</del> ENRM	
Zm-POX26	(1) -----QLR <del>V</del> GFYDSSCPAAE <del>I</del> IVQQEV <del>S</del> R <del>A</del> VAANP <del>G</del>	
Zm-POX28	(1) -----QLRQN <del>Y</del> YGSSCP <del>S</del> AESTVRSV <del>T</del> SQR <del>L</del> QQSF <del>A</del>	
Zm-POX31	(1) -----AHGYGAYGYG <del>D</del> AAAELRVGFYKDSCPDAE <del>A</del> VRRIVAKA <del>V</del> QEDPTA	
Zm-POX34	(1) -----QLKEGFYDYSCPQAEKIV <del>K</del> DYVKA <del>H</del> TPHAD <del>D</del>	
Zm-POX37	(1) -----GLTAQLRQD <del>Y</del> YAAVCPD <del>L</del> E <del>S</del> I <del>V</del> R <del>A</del> VSKV <del>Q</del> QP <del>V</del> A	
Consensus	(1) QL FY SCP AESIVR V AV P V	
	51	100
Zm-POX01	(1) -----	
Zm-POX04	(33) GASLLRLFFFHDCFVQGCDG <del>S</del> ILL <del>D</del> AGG-----EKTAGPNL <del>N</del> <del>S</del> VRGFEV	
Zm-POX05	(43) AAGL <del>T</del> RTFFFHDCFPQGCDASVLLSGSN-----SEQIEVPNQTLRPEALK <del>I</del>	
Zm-POX06	(51) NAPLLRLHFHDCFVRGCDGSV <del>L</del> VNSTRGNT--AEKDAKPN-H <del>T</del> -LDAFDV	
Zm-POX07	(40) PARLLRLHFHDCFVKGCDAS <del>I</del> LLDTAQ---SEKTAAPN-LS-VGGYEV	
Zm-POX08	(37) GAGL <del>T</del> RMHFHDCFVRGCDGS <del>I</del> LINSTPDNK--AEKDSVANNPS-MRGFDV	
Zm-POX10	(36) VASVMRLQFHDCFVNGCDGSV <del>L</del> MDATPTMPG--EKDALSNINS-LRSFEV	
Zm-POX16	(33) GASLLRLHFHDCFVQGCDAS <del>I</del> LLN <del>D</del> TS----GEQTQPPNLTLNPR <del>A</del> FDV	
Zm-POX17	(33) ASTLLRTHFHDCFVRGCDASVLLN <del>A</del> TGGSE--AEKDAAPN-L <del>T</del> -LRGFGF	
Zm-POX18	(37) AGPLLRLHFHDCFVRGCDASVLLDSTPTST--AEKDATPN-L <del>T</del> -LRGFGS	
Zm-POX20	(33) YASLTCLHFHDCFVQGCDGSVLLDA <del>V</del> PGVANSTEKLAPANNN <del>S</del> -ARGFPV	
Zm-POX21	(48) TAGLLRLLFHDCFPQGCDAS <del>I</del> LLDNG-----ERGLPPNVGLQQEAVQ <del>I</del>	
Zm-POX24	(33) GASLLRLHFHDCFVQGCDASVLLADNAATGFTGEQGAAPNAGS-LRGFDV	
Zm-POX26	(33) AAGLLRLHFHDCFVGCDASV <del>L</del> IDSTKGNT--AEKDAGPN-LS-LRGFEV	
Zm-POX28	(33) GPGTLRLFFFHDCFVRGCDASV <del>M</del> MAP---NGDDESHSGADATLSPDAVDA	
Zm-POX31	(47) NAPLLRLHFHDCFVRGCDGSV <del>L</del> VNSTRGNT--AEKDAKPN-H <del>T</del> -LDAFDV	
Zm-POX34	(33) ASTLLRTHFHDCFVRGCDASVLLN <del>A</del> TGGSE--AEKDAAPN-L <del>T</del> -LRGFGF	
Zm-POX37	(37) VGAT <del>T</del> RLFFFHDCFVEGCDASV <del>L</del> LV <del>S</del> TG--NN <del>T</del> AEKDHP <del>S</del> NL <del>S</del> LAGDG <del>F</del> <del>T</del>	
Consensus	(51) AA LLRLHFHDCFV GCDASVLL AT AEKDA PN S LRGFDV	

FIG 1A

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2/4

		101	150
Zm-POX01	(1)	-----MSCCMQGG-----	GPA
Zm-POX04	(76)	IDTIKRNV <span style="background-color: yellow;">EAA</span> --CPGVVSCADILALAARDGTNLLG-----	GPT
Zm-POX05	(88)	IDDI <span style="background-color: yellow;">RAV</span> HAV--CGPTVSCADITTLATRDAVVASG-----	GPF
Zm-POX06	(97)	IDDIKEALEKR--CPGTVSCADILATAARD <span style="background-color: yellow;">AVSL</span> ATKVVTKGWSRDGNL	
Zm-POX07	(83)	IDA <span style="background-color: yellow;">IKAQLERA</span> --CPGVVSCADI <span style="background-color: yellow;">VALAARD</span> AVSYQFK-----	ASL
Zm-POX08	(84)	V <span style="background-color: yellow;">DDAKAVLEAH</span> --CPRTVSCADI <span style="background-color: yellow;">VAFAARD</span> SAYLAG-----	GLD
Zm-POX10	(83)	V <span style="background-color: yellow;">DEIKDALEER</span> --CPGVVSCADI <span style="background-color: yellow;">VIMAARD</span> AVVLTG-----	GPN
Zm-POX16	(78)	V <span style="background-color: yellow;">NSIKAQVEAA</span> --CPGVVSCADILAVAARDGVVALG-----	GPS
Zm-POX17	(79)	IDRIKALLEKE--CPGVVSCADI <span style="background-color: yellow;">VALAARD</span> SVGVIG-----	GPF
Zm-POX18	(83)	V <span style="background-color: yellow;">QRVKDRLEEA</span> --CPGNVSCADVLALMARDAVVLAN-----	GPS
Zm-POX20	(82)	V <span style="background-color: yellow;">DKVKAaleda</span> --CPGVVSCADILALAAEISVELSG-----	GPK
Zm-POX21	(91)	V <span style="background-color: yellow;">EDIRGKVHAA</span> --CGPTVSCADITVLATRDAVSLSG-----	GPS
Zm-POX24	(82)	I <span style="background-color: yellow;">ANIKAOVEAV</span> --CKQTVSCADILA <span style="background-color: yellow;">VAARD</span> SVVALG-----	GPS
Zm-POX26	(79)	V <span style="background-color: yellow;">DRIKARVEQA</span> --CFGVVSCADILAFAARD <span style="background-color: yellow;">SVALA</span> G-----	GNA
Zm-POX28	(80)	INKAKAA <span style="background-color: yellow;">VEALPGCAGKV</span> SCADILAMAARDVVSSLG-----	GPS
Zm-POX31	(93)	IDDIKEALEKR--CPGTVSCADILATAARD <span style="background-color: yellow;">AVSL</span> ATKVVTKGWSRDGNL	
Zm-POX34	(79)	IDRIKALLEKE--CPGVVSCADI <span style="background-color: yellow;">VALAARD</span> SVGVIG-----	GPF
Zm-POX37	(85)	V <span style="background-color: yellow;">IQAKAAVDAVPACANQV</span> SCADILALATRDVIELAG-----	GPS
Consensus	(101)	ID IKA LE CPG VSCADILALAARDAV LAG	GP
		151	200
Zm-POX01	(12)	Y <span style="background-color: yellow;">KUPLGRRDG</span> LA <span style="background-color: yellow;">PASNA</span> AVLAALPPPTS <span style="background-color: yellow;">KMP</span> TLLSFLAKI - NLDVTDLV	
Zm-POX04	(113)	W <span style="background-color: yellow;">SVPLGRRD</span> STTAS <span style="background-color: yellow;">ASLANS</span> -NPPPPTAS <span style="background-color: yellow;">LGT</span> LISLFGRQ-GLSPRD <span style="background-color: yellow;">MTA</span>	
Zm-POX05	(125)	F <span style="background-color: yellow;">EVPLGRRD</span> GLAPASSDLVG-TLPAPFFDVPTLIESFKNR-SLDKADLV	
Zm-POX06	(145)	Y <span style="background-color: yellow;">QVETGRRDGRVSR</span> A <span style="background-color: yellow;">KEAVK</span> -NLPDSMDGTRKLIRR <span style="background-color: yellow;">ASK</span> -NL <span style="background-color: yellow;">SVKDL</span> AV	
Zm-POX07	(121)	W <span style="background-color: yellow;">QVETGRRDGT</span> V <span style="background-color: yellow;">S1</span> ASNTG--ALPSPFAGFAGLLQSFS <span style="background-color: yellow;">D</span> -GLNLTDLV	
Zm-POX08	(121)	Y <span style="background-color: yellow;">KVPSGRRDGRVSK</span> E <span style="background-color: yellow;">DEVLDNNW</span> PAPTDE <span style="background-color: yellow;">VDELIES</span> FKRK-GLNADD <span style="background-color: yellow;">MVT</span>	
Zm-POX10	(120)	WEVRLG-R <span style="background-color: yellow;">EDSM</span> TA <span style="background-color: yellow;">SQEDADNIM</span> PSPRANAS <span style="background-color: yellow;">ALIRLF</span> AGL-NL <span style="background-color: yellow;">SVT</span> DLV	
Zm-POX16	(115)	WT <span style="background-color: yellow;">VLLGRRD</span> S-TGSFPSQTS-DLPPPTSS <span style="background-color: yellow;">QALLAA</span> Y <span style="background-color: yellow;">SKK</span> -NLDATD <span style="background-color: yellow;">MVA</span>	
Zm-POX17	(116)	WSVPTGRRDGT <span style="background-color: yellow;">VSI</span> K <span style="background-color: yellow;">QEALD</span> -Q <span style="background-color: yellow;">TP</span> APT <span style="background-color: yellow;">MNFT</span> Q <span style="background-color: yellow;">LLQSFQNK</span> -SLNLADLV	
Zm-POX18	(120)	WP <span style="background-color: yellow;">VALGRRYGRV</span> SL <span style="background-color: yellow;">ANE</span> TN-QLPPPTAN <span style="background-color: yellow;">FTRL</span> V <span style="background-color: yellow;">SMFAAK</span> -GL <span style="background-color: yellow;">SVR</span> DLV	
Zm-POX20	(119)	WA <span style="background-color: yellow;">VLLG</span> -RLDSKKAD <span style="background-color: yellow;">FKSAENLP</span> -SPFDNLTV <span style="background-color: yellow;">LEQKF</span> AAV-GLHTVDLV	
Zm-POX21	(128)	F <span style="background-color: yellow;">TVPLGRL</span> DSA <span style="background-color: yellow;">PAPAS</span> NDVF-TLPPPTATV <span style="background-color: yellow;">DELLTAF</span> GS <span style="background-color: yellow;">KNLSDP</span> ADLV	
Zm-POX24	(119)	WT <span style="background-color: yellow;">VPLGRRD</span> STTAS <span style="background-color: yellow;">ASLANS</span> -DLPPPFFNL <span style="background-color: yellow;">GQ</span> LI <span style="background-color: yellow;">TAF</span> GNK-GFTATEMAT	
Zm-POX26	(116)	Y <span style="background-color: yellow;">QVPA</span> GRRDGS <span style="background-color: yellow;">VSRA</span> SDTNG-NLPPPTAN <span style="background-color: yellow;">VAQ</span> LTQIF <span style="background-color: yellow;">CTK</span> -GL <span style="background-color: yellow;">TOKEM</span> VI	
Zm-POX28	(119)	Y <span style="background-color: yellow;">GVELGRLDG</span> KTFNRAIVKH-VLP <span style="background-color: yellow;">PGPGF</span> NLD <span style="background-color: yellow;">QNALFA</span> QN-GL <span style="background-color: yellow;">TQ</span> TD <span style="background-color: yellow;">MIA</span>	
Zm-POX31	(141)	Y <span style="background-color: yellow;">QVETGRRDGRV</span> SR <span style="background-color: yellow;">AKEAVK</span> -NLPDSMDGTRKLIRR <span style="background-color: yellow;">ASK</span> -NL <span style="background-color: yellow;">SVKDL</span> AV	
Zm-POX34	(116)	WSVPTGRRDGT <span style="background-color: yellow;">VSI</span> K <span style="background-color: yellow;">QEALD</span> -Q <span style="background-color: yellow;">TP</span> APT <span style="background-color: yellow;">MNFT</span> Q <span style="background-color: yellow;">LLQSFQNK</span> -SLNLADLV	
Zm-POX37	(124)	Y <span style="background-color: yellow;">AVELGRLDG</span> LV <span style="background-color: yellow;">SM</span> ST <span style="background-color: yellow;">NVDG</span> -KLPPPS <span style="background-color: yellow;">FNL</span> DQ <span style="background-color: yellow;">LTS</span> IF <span style="background-color: yellow;">ALN</span> -NL <span style="background-color: yellow;">SQADM</span> IA	
Consensus	(151)	W V <span style="background-color: yellow;">PLGRRD</span> G VS A E LP PT NL LI FA K LS DLV	

FIG 1B

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3/4

	201	250
Zm-POX01	(61) LSGGHTVGIAHCGSFDNRLEP-----TQDPFLNKFFAGQLYRTCPNT	
Zm-POX04	(161) LSGAHTIGOARCTTFRGRITYG-----DTDINASFAALRQQTCPRS	
Zm-POX05	(173) LSGAHTVGRGHCVSFSDRLPP-----NADDGTMMDPAFRQRLTAKCASD	
Zm-POX06	(193) LSGAHAIGKSHCPSIAKRLRNFTAHR---DSDPTLDGAYAAELRRQCRSR	
Zm-POX07	(168) LSGAHTIGVASCSVTPRLYQGNASS---VDPLLDSAYARTLMSSCPNP	
Zm-POX08	(170) LSGAHTIGRSHCSFTERLYNFSQQLG--RTDPSLDPAYAEHLKMRCPPW	
Zm-POX10	(168) LSGSHSIGEARCSIVFRLYNQSGSG---RPDPHMDTAYRRSLDALCPKG	
Zm-POX16	(162) LSGAHTIGQAQCSSFNGHITYN-----DTNINAFAFATSLKANCPMS	
Zm-POX17	(164) LSGAHTIGISOCNSFSERLYNFTGRGGPDDADPSLDPLYAAKLRLKCKTL	
Zm-POX18	(167) LSGGHTLGTAHCNLFSDRLYNFTGANSLADVDPALDAAYLARLRSRCRSL	
Zm-POX20	(166) LSGAHTFGRVQCFQVTGRLYNFSGTN---RPDPFLNSGYRAFLAQRCPOQ	
Zm-POX21	(177) LSGAHTVKGKARCSSFGDVAGP-----ATDDVTR-----CVTATCSAP	
Zm-POX24	(167) LSGAHTIGQAQCKNFRDHITYN-----DTNINOQFASSILKANCPRP	
Zm-POX26	(164) LSGAHTIGSSHCSFSGRLSGSATTAG--GQDPTMDPAYVAOLARQCPQG	
Zm-POX28	(167) LSGAHTIGVTHCDKFVRRITYFKQ---RLAWNPPMNLDFLRSLLRRVCPLS	
Zm-POX31	(189) LSGAHAIGKSHCPSIAKRLRNFTAHR---DSDPTLDGAYAAELRRQCRRR	
Zm-POX34	(164) LSGAHTIGISOCNSFSERLYNFTGRGGPDDADPSLDPLYAAKLRLKCKTL	
Zm-POX37	(172) LSAAHHTVGFACSTFSDRITQ-----PQSVDPTMNATYAEDLQAACPAG	
Consensus	(201) LSGAHTIG AHC SFS RLYN G DPTLD AYAA LR CP	

	251	300
Zm-POX01	(103) AT----VNTTANDVRTPNAFDNKYYVDLLNREG---LFTSDQDLLTN--	
Zm-POX04	(201) GGDG----NLAPTDVQTPVRFDTAYFTNLLSRRG---LFHSDEQELFNG--	
Zm-POX05	(216) PSGN---VVTQVLDVRTPNAFDNKYYFDLTIAKQG---LFKSDQGLINHP-	
Zm-POX06	(240) RD----NTTELEMVPGSSTAFTGTAYYGLVAERRA---LFHSDEALLRN--	
Zm-POX07	(214) SP----ASATVALDGGTPFREDSSYYSRVQQKQG---TLASDAALAQN--	
Zm-POX08	(218) SSNDQMDPTVPLDPVTPATEFDNQYYKNVLAHKV---LFIISDNTLIEN--	
Zm-POX10	(215) GD----EEVTGGLD-ATPRVFDNQYFEDLVALRG---FLNSDQTLFSD--	
Zm-POX16	(202) GGS----S <del>L</del> APLDTMTPTVFDNDYYKNL <del>S</del> QKG---LLHSDQELFNN--	
Zm-POX17	(214) TD----NTTIVEMDPGSFR <del>T</del> FDLSYYRGVLKRRG---LFQSDAALITD--	
Zm-POX18	(217) AD----NTTLNEMDPGSFLSFDSYYSLVARRRG---LFHSDAALLTDD--	
Zm-POX20	(213) GS----PSALNDLDPPTPNLFDNHYYTNLEVNRG---FLGSDQELKSAPQ	
Zm-POX21	(214) GSG----DTLRDLDFLTPAVFDNLYFVELTLRK <del>N</del> KGVMLPSDQGLVSDP-	
Zm-POX24	(207) TGSGD--GNLAPLDTTPYSPFDNAYYSNLL <del>S</del> QKG---LLHSDQELFNG--	
Zm-POX26	(212) G-----DPLVPMDYVSPNAFDEGFYKGVMNSNRG---LLSSDQALLSD--	
Zm-POX28	(214) YSP----TAFAMLDVTTPRVF <del>D</del> NAYE <del>N</del> NLRYNKG---LLASDQVLFIDR-	
Zm-POX31	(236) RD----NTTELEMVPGSSTAFTGTAYYGLVAERRA---LFHSDEALLRN--	
Zm-POX34	(214) TD----NTTIVEMDPGSFR <del>T</del> FDLSYYRGVLKRRG---LFQSDAALITD--	
Zm-POX37	(215) VDP----NIALQLDPVTPQAF <del>D</del> NQYE <del>A</del> NLVDGRG---LFASDQVLFSDA-	
Consensus	(251) L LD TP FD <del>N</del> AYY LL RRG LF SDQALLS	

FIG 1C

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4/4

	301	350
Zm-POX01	(143) -- <del>A</del> TTRP <del>I</del> VTRFAVD--QDAFFDQFVYSY <del>M</del> KMGQ <del>V</del> NVLTGSQ-GQ <del>V</del> RANC	
Zm-POX04	(242) -- <del>G</del> SQDALVRO <del>Y</del> SA--SASLFNADFVAAMIRMGNVGVLTGTA-GQ <del>I</del> RRNC	
Zm-POX05	(259) ---DTKRAATRFALN--QAAFFDQFARSMVKMSQMDILTG-SAGEI <del>R</del> NC	
Zm-POX06	(281) -- <del>G</del> ETRALVYRYRDAPSEAPFLADFGASMLNMGRVGVLTG <del>A</del> Q-GEIRKRC	
Zm-POX07	(255) -- <del>A</del> AAAQM <del>V</del> ADLTN---PIKF <del>Y</del> AFSMSMKMGRV <del>D</del> VLTGAN-GQIRKQC	
Zm-POX08	(263) -PWTAGMVHFNAA-VEKA <del>W</del> QVKFAK <del>M</del> KMGK <del>V</del> QLTGDE-GEIREKC	
Zm-POX10	(255) -NTRTRR <del>M</del> VERLSK-DQDAF <del>E</del> RAFIEGM <del>L</del> KMGE <del>Q</del> --NPRKGEI <del>R</del> NC	
Zm-POX16	(242) --GSTDTSVSNEAS-SFGRLHQQLHGGHGEDGE <del>P</del> RP <del>A</del> H <del>D</del> Q-WADQAHL	
Zm-POX17	(255) -- <del>A</del> ASKAD <del>T</del> LSVIN-APPEV <del>F</del> QVFAGSMV <del>M</del> KMG <del>A</del> TEVKTGSE-GEIRKHC	
Zm-POX18	(258) --PATRAYVQRQATGLFTAEEFRDFADSMVKMSTIDVLTGQQQGEIRKKC	
Zm-POX20	(256) AQGV <del>T</del> APVV <del>D</del> QFAT--SQAAFFSSFAQS <del>M</del> INMGNTQPLTDPAK <del>G</del> E <del>V</del> RCDC	
Zm-POX21	(259) --RTSWLVQGFADN--HWWF <del>D</del> QFR <del>T</del> SM <del>I</del> KMSQLRG <del>P</del> QG-NVGEI <del>R</del> NC	
Zm-POX24	(250) --GSTDNTVRNFAS-NSAAFSSAF <del>A</del> AMV <del>M</del> KMG <del>N</del> ISPLTG <del>S</del> Q-GQIRLTC	
Zm-POX26	(251) --KNTAVQVVT <del>Y</del> AN-DPATFQADFAAMV <del>M</del> KMG <del>S</del> V <del>G</del> VLTGTS-GK <del>V</del> RANC	
Zm-POX28	(256) --RSRPTVNLF <del>A</del> AN-ATAF <del>Y</del> EA <del>F</del> VAA <del>M</del> AKLGRIG <del>L</del> KTG-ADGEI <del>R</del> VC	
Zm-POX31	(277) -- <del>G</del> ETRALVYRYRDAPSEAAFLAEFGASMLNMGRVGVLTG <del>A</del> Q-GEIRKRC	
Zm-POX34	(255) -- <del>A</del> ASKAD <del>T</del> LSVIN-APPEV <del>F</del> QVFAGSMV <del>M</del> KMG <del>A</del> TEVKTGSE-GEIRKHC	
Zm-POX37	(257) --RSQPTVVWAQN-ATDFEQAFVDAITRLGRVGVKTDPSLGDVR <del>R</del> DC	
Consensus	(301) G TR LV FA FF FAASMV <del>K</del> M V VLTG GEIRK C	

	351	397
Zm-POX01	(188) SARNGAAAGDS <del>D</del> LPWSSVVIETVADAAGSLVL-----	
Zm-POX04	(287) RVVNS-----	
Zm-POX05	(303) SVRNTALGDVSSA <del>Q</del> LETTAGDEGLAADA-----	
Zm-POX06	(328) AFVN-----	
Zm-POX07	(299) RQVNTS-----	
Zm-POX08	(308) FAVNPHY-----	
Zm-POX10	(299) RVANNSPWQ <del>P</del> R <del>T</del> GMAS <del>G</del> Q <del>S</del> TSEL <del>R</del> -----	
Zm-POX16	(287) LEAQ <del>L</del> VLI <del>I</del> KDGRPIDDPAQSYRTC <del>M</del> IRIHLETTIPMQTEIYT <del>Y</del> EY <del>V</del>	
Zm-POX17	(301) ALVNKH-----	
Zm-POX18	(306) NLVN-----	
Zm-POX20	(304) RVANDD-----	
Zm-POX21	(303) FRPNTNGIAASA-----	
Zm-POX24	(295) STVN-----	
Zm-POX26	(296) RVA-----	
Zm-POX28	(300) TAVN-----	
Zm-POX31	(324) AFVN-----	
Zm-POX34	(301) ALVNKH-----	
Zm-POX37	(302) AFLN-----	
Consensus	(351) VN	

FIG 1D